

07/31/2013



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 31 2013

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Ms. Carrie M. Tackema
Cleary Chemicals, LLC
11901 S. Austin Ave.
Alsip, IL 60803

Subject: Notification to Rise Language found in the Storage and Disposal Section of the Label

Dear Ms. Tackema:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated June 28, 2013 for:

EPA Registration 228-717

Kilter™ Insecticide

The Registration Division (RD) has conducted a review of this request of applicability under PRN 98-10 and finds that the label changes(s) requested falls within the scope of PRN 98-10. The label has been date-stamped "Notification" and will be placed in our records.

If you have any questions, call me at 703 305-5409 or at daniel.dani@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Dani Daniel".

Dani Daniel
Registration Division (7504P)
Insecticide/Rodenticide Branch

NOTIFICATION

Please read instructions on reverse before completing form.

Form Approved, MB No. 2070-0060, Approval expires 05-31-98

2/27



United States **30 2013**
Environmental Protection Agency
 Washington, DC 20460

- Registration
- Amendment
- Other:

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 228-717	2. EPA Product Manager Venus Eagle	3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
4. Company/Product (Name) Kilter™ Insecticide	PM# 1	
5. Name and Address of Applicant (Include ZIP Code) Nufarm Americas, Inc. 11901 S. Austin Ave. Alsip, IL 60803		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____
<input type="checkbox"/> Check if this is a new address		

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

NOTIFICATION PER PRN 98-10: revise storage and disposal language

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
*Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 16, 32 fl. oz.; 1,2,5,30,220,250,265 gallons; bulk		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Other <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)		
Name Carrie M. Tackema	Title Regulatory Manager	Telephone No. (Include Area Code) (919) 879-2528
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Manager	
4. Typed Name Carrie M. Tackema	4. Date June 28, 2013	

¹ The following is applicable if both lambda-cyhalothrin and gamma-cyhalothrin are used on a crop during the same crop growing season:

When the maximum application rate of lambda-cyhalothrin is reached alone no gamma-cyhalothrin product can be used and when the maximum application rate of gamma-cyhalothrin is reached alone no lambda-cyhalothrin product can be used. If used in combination, the amounts of each that can be used can be calculated as shown in the following examples [the gamma-cyhalothrin quantity can be multiplied by 2 to calculate the total ai based upon lambda-cyhalothrin]:

Example 1: If the maximum use rate for lambda-cyhalothrin = 0.12 lb ai/acre/year and 0.06 lb ai has been applied, $(0.12 - 0.06) \times 2 = 0.03$ lb ai of gamma-cyhalothrin could be applied during the remainder of the crop use season.

Example 2: If the maximum use rate for gamma-cyhalothrin = 0.06 lb ai/acre/year and 0.03 lb ai has been applied, $(0.06 - 0.03) \times 2 = 0.06$ lb ai of lambda-cyhalothrin could be applied during the remainder of the crop use season.

² When the maximum application rate of imidacloprid is reached no imidacloprid product can be used.

³ Includes any lambda-cyhalothrin or gamma-cyhalothrin product approved for crop uses.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over short sleeve shirt and short pants,
- Chemical-resistant gloves, Category F (such as nitrile rubber, butyl rubber, barrier laminate, or Viton® ≥ 14 mils),
- Chemical-resistant footwear plus socks, and
- Chemical-resistant headgear for overhead exposure.

APPLICATION INSTRUCTIONS

Shake well before using.

Apply as a directed or broadcast foliar spray. Thorough coverage of foliage is necessary without runoff for optimum insecticidal efficacy. Use adequate spray volumes, properly calibrated application equipment and spray adjuvant if necessary to obtain thorough coverage. Failure to provide adequate coverage and retention of this product on leaves and fruit may result in loss of insect control or delay in onset of activity. Apply this product with properly calibrated ground or aerial application equipment. Minimum spray volumes, unless otherwise specified on crop specific application instructions sections, are 10 gallons/Acre by ground applications and 5 gallons/Acre through aerial equipment. This product may also be applied by overhead chemigation (see additional **Chemigation Directions for Use** section below) if allowed in crop specific application instruction section.

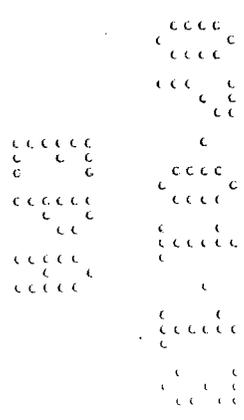
RESISTANCE MANAGEMENT

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area.

This product contains a Group 3 Insecticide and a Group 4A Insecticide (lambda-cyhalothrin, belonging to the pyrethroid class of chemistry is a Group 3 Insecticide / imidacloprid, belonging to the neonicotinoid class of chemistry is a Group 4A Insecticide). Insect biotypes with acquired or inherent resistance to Group 3 and/or Group 4A may eventually dominate the insect population if Group 3 and/or Group 4A insecticides are used repeatedly as the predominant method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 3A or Group 4A Insecticides.

One of the active ingredients in this product Insecticide is a member of the neonicotinoid chemical class. Avoid using a block of more than three consecutive applications of this product and/or other Group 4A products having the same or similar mode of action.

Following a neonicotinoid block of treatments, Nufarm strongly encourages the rotation to a block of applications with effective products of a different mode before using additional applications of neonicotinoid products. Using a block



rotation or windowed approach, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect pest's ability to develop resistance to this class of chemistry.

Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://irac-online.org/>.

ROTATIONAL CROPS

Treated areas may be replanted with any crop specified on an imidacloprid label as specified below. There are no rotational crop restrictions based on lambda-cyhalothrin.

ROTATIONAL PLANT-BACK INTERVALS*

IMMEDIATE PLANT-BACK

All crops on this label plus the following crops not on this label: barley, canola, Christmas trees, corn (field, sweet and pop), cranberry, Globe artichoke, mustard seed, onion and bulb vegetables, rapeseed, strawberry, sorghum, sugarbeet, sunflower, tobacco, watercress, wheat and all crops from the following Crop Groups as recognized and defined by EPA.

LEAFY PETIOLE VEGETABLES - Crops of Crop Subgroup 4B

LEGUME VEGETABLES - Crops of Crop Group 6 including: Edible Podded plus Succulent Shelled, Peas and Beans

CUCURBIT VEGETABLES - Crops of Crop Group 9

BUSHBERRY and CANEBERRY - Crops of Crop Group 13

HERBS - Crops of Crop Subgroup 19A

ROOT VEGETABLES - Crops of Crop Subgroup 1B

TROPICAL FRUIT - Including: Acerola, Atemoya, Avocado, Biriba, Black sapote, Canistel, Cherimoya, Custard apple, Feijoa, Llama, Jaboticaba, Guava, Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Persimmon, Pulasan, Rambutan, Sapodilla, Soursop, Spanish lime, Star apple, Starfruit, Sugar apple, Wax jambu

30-DAY PLANT-BACK

Cereals (including buckwheat, millet, oats, rice, rye, and triticale), safflower

12-MONTH PLANT-BACK

All other crops

*Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.

FOLIAR APPLICATIONS

Apply using properly calibrated ground sprayers, fixed- or rotary-winged aircraft or through properly designed, sprinkler-type, chemigation equipment. Thorough and uniform coverage of plants, is required for pest control. Use of spray nozzles that provide medium-sized droplets are encouraged to reduce drift potential. For all aphids, apply as pest population begins to build and prior to build up of damaging levels. See **Spray Drift Management** section below for application guidelines on all application methods.

Ground equipment applications must be made in a minimum of 10 gallons/A. A non-ionic surfactant (NIS) is recommended for this use. See **Adjuvant** section below.

Aerial applications must be made in a minimum of 2 gallons/A. A crop-oil-concentrate (COC) is recommended for this use. See **Adjuvant** section below.

Chemigation applications must be made as concentrated as possible. For best results apply at 100% input for center pivots or 0.10 inch (2,716 gallons) up to 0.15 inch (4,073 gallons) of water/A for other systems. See additional directions and precautions given below. Use only the highest labeled rate for chemigation applications.

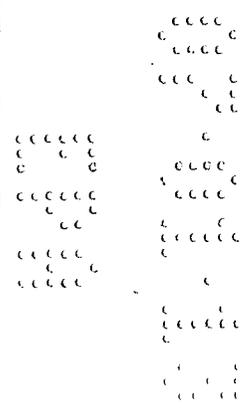
TANK MIXES

Unless otherwise prohibited on this label or the label of an intended tank mix product, this product may be applied in combination with any pesticide registered for the same crop, timing, and method of application. Follow the most restrictive label statements of various tank mix products used.

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Maintain agitation throughout the spraying operation. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area. Keep product container tightly closed when not in use.

COMPATIBILITY

Before full-scale mixing of this product with foliar-applied adjuvants, fungicides, herbicides and insecticides/miticides and fertilizers determine the compatibility of the proposed mixture.



Adjuvants

The use of an adjuvant may improve deposition, coverage and pest control.

- A high quality, non-ionic surfactant (NIS) is recommended for ground applications.
- A crop-oil-concentrate (COC) is recommended for aerial applications.
- All adjuvants regardless of their composition must be used according to the adjuvants manufacturer's use directions.
- **DO NOT** use petroleum-based and other non-emulsifiable oils with this product.

Mixing order

When pesticide or fertilizer mixtures are needed, add products in the following order:

- Products packaged in PVA;
- Wettable-powders-or wettable granules;
- This product or other flowable type products;
- Emulsifiable concentrates;
- Fertilizer or micro-nutrient solutions

Ensure good agitation as each component is added. **DO NOT** add an additional component until the previous is thoroughly mixed. If a fertilizer or micro-nutrient solution is used, a fertilizer/pesticide compatibility agent may be needed. Maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

Compatibility Note (Jar Test)

Test compatibility of the intended mixture before adding this product to the spray or mix tank. Add proportionate amounts of each ingredient in the appropriate order, to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Poor mixing or formation of precipitates that do not readily redisperse indicates an incompatible mixture that should not be used. For further information, contact your local Nufarm representative.

IMPORTANT

PESTICIDE TANK MIXES MAY INCREASE THE RISK OF MIXING INCOMPATIBILITIES, REDUCED EFFECTIVENESS AND/OR CAUSE CROP INJURY OR LOSS. ANY LIABILITY FOR LOSS, INJURY OR DAMAGE RESULTING FROM A TANK MIXTURE NOT SPECIFIED ON THIS LABEL OR IN MANUFACTURER'S SUPPLEMENTAL LABELING DISTRIBUTED FOR THIS PRODUCT IS SPECIFICALLY DISCLAIMED BY MANUFACTURER.

MIXING WITH OTHER SUBSTANCES MAY INCREASE THE RISK OF MIXING INCOMPATIBILITIES, REDUCED EFFECTIVENESS AND/OR CAUSE CROP INJURY OR LOSS. ANY LIABILITY FOR LOSS, INJURY OR DAMAGE RESULTING FROM A MIXTURE NOT SPECIFIED ON THIS LABEL OR IN MANUFACTURER'S SUPPLEMENTAL LABELING DISTRIBUTED FOR THIS PRODUCT IS SPECIFICALLY DISCLAIMED BY MANUFACTURER.

SPRAY DRIFT MANAGEMENT

BUFFER ZONES

Vegetative Buffer Strip

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply this product onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers:

Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21 pp.

www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf

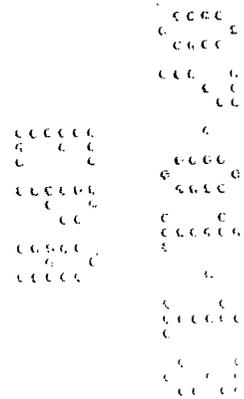
In the State of New York, a 25 ft. vegetated, non-cropped buffer strip untraversed by drainage tiles must be maintained between a treated field and a coastal salt marsh or stream that drains into a coastal salt marsh, for both aerial or ground application. For aerial applications, the 25 ft. vegetated non-cropped buffer strip for runoff protection would be part of the larger 150 ft. buffer strip (or 450 ft. buffer strip for ULV application) required for spray drift.

Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast)

DO NOT apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes; natural ponds; estuaries; and commercial fish ponds).

Buffer Zone for ULV Aerial Application

DO NOT apply within 450 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes; natural ponds; estuaries; and commercial fish ponds).



Buffer Zone for Non-ULV Aerial Application

DO NOT apply within 150 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes; natural ponds; estuaries; and commercial fish ponds).

SPRAY DRIFT REQUIREMENTS

Wind Direction and Speed

Only apply this product if the wind direction favors on-target deposition.

DO NOT apply when the wind velocity exceeds 15 mph.

Temperature Inversion

DO NOT make aerial or ground applications into temperature inversions.

Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Droplet Size

Use only medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Additional Requirements for Ground Applications

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Additional Requirements for Aerial Applications

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices.

The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest control and flight safety. DO NOT release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a cross-wind, the swath will be displaced downward. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

CHEMIGATION

Sprinkler Irrigation Application

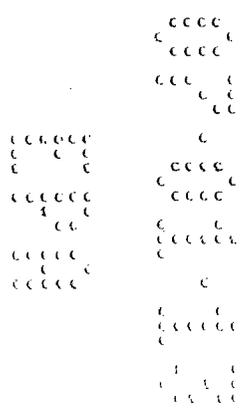
Apply this product at rates and timing described in the **Specific Use Directions** provided on this label. As local recommendations differ, consult your local State Extension Service or other local experts for recommendations on adjuvant or diluent types, adjuvant rates and mixing instructions.

Check the irrigation system to insure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Good agitation in the pesticide supply tank should be maintained prior to and during the entire application period.

Apply by injecting the specified rate of this product into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target area in 0.1-0.2 acre inch of water. In general, use the least amount of water required for proper distribution and coverage. It is recommended that the product be injected into the main irrigation line ahead of a right angle turn in the line to insure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system.

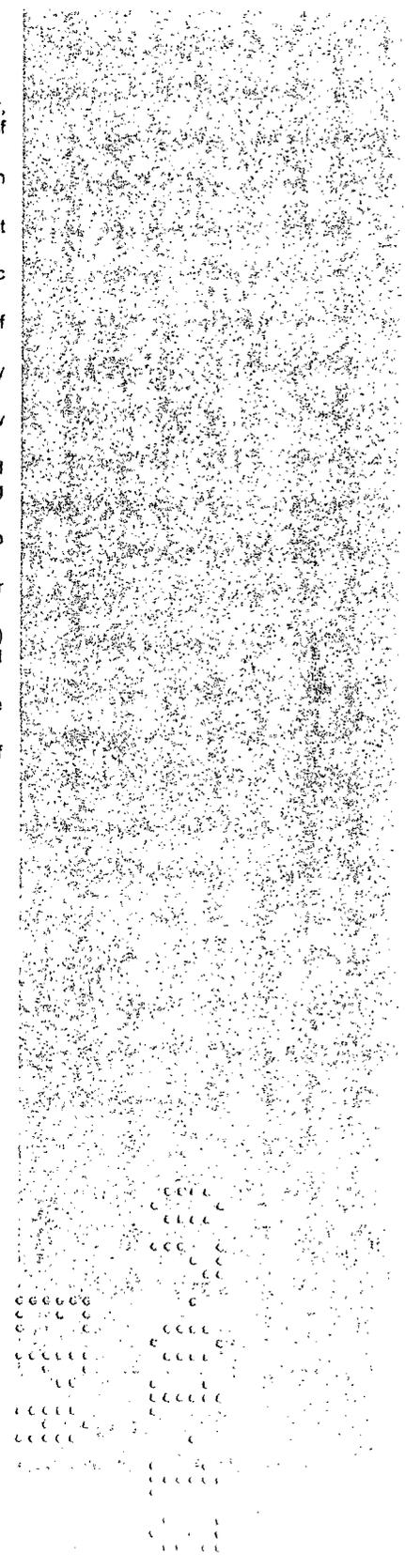
In addition to the above instructions, if application is being made during a normal irrigation set of a stationary sprinkler, the specified rate of this product for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

DO NOT apply this product through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.



Sprinkler Irrigation Application Directions & Restrictions

- A. Apply this product only through (sprinkler including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set, or hand move) irrigation system(s). **DO NOT** apply this product through any other type of irrigation system.
- B. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- C. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- D. **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- E. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- F. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- G. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- H. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- I. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- J. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- K. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- L. Any alternatives to the above required safety devices must conform to the list of EPA-approved alternative devices.
- M. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.
- N. **DO NOT** apply through chemigation systems connected to public water systems.



SPECIFIC USE DIRECTIONS AGRICULTURAL USES

For Foliar Applications

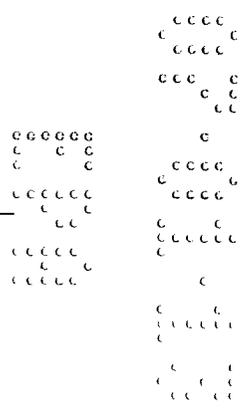
Apply specified rate per acre as a broadcast or directed foliar spray as pest populations begin to build. Thorough uniform coverage is necessary to achieve optimal control. A spray adjuvant may be used to improve coverage. This product may not knock down established and heavy insect populations. Two applications may be required to achieve control. Scout fields and retreat if needed. This product may be tank mixed with other insecticides for knockdown of pests or for improved control of other pests.

COLE CROPS (HEAD & STEM BRASSICA) – Foliar*:
Crops of Crop Group 5A including: Broccoli, Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese broccoli (*gai lon*), Chinese cabbage (*napa*), Chinese mustard cabbage (*gai choy*), Kohlrabi.

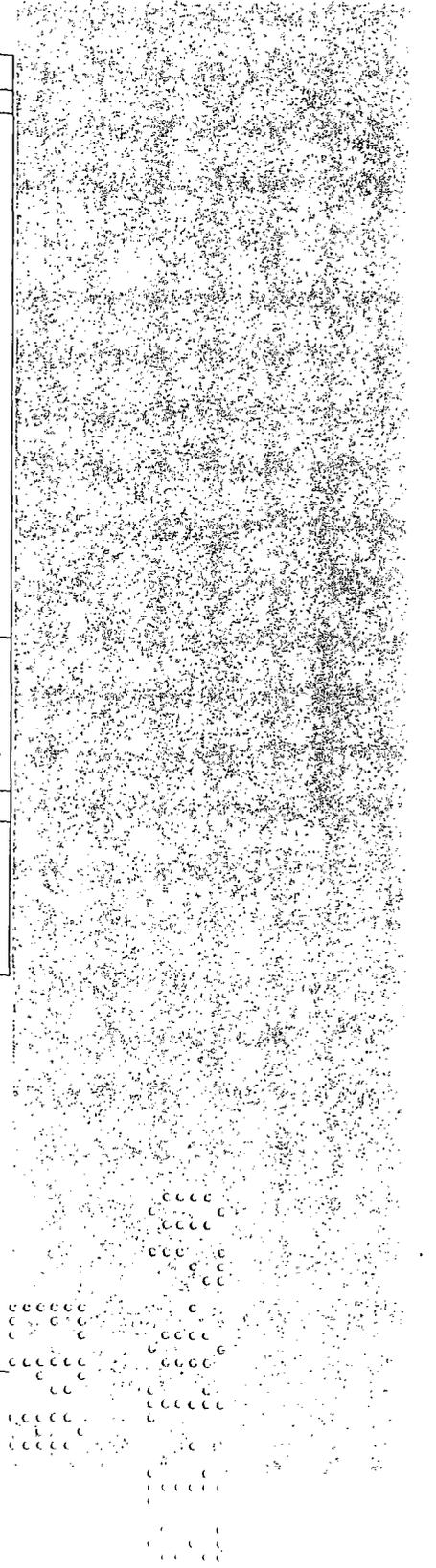
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Alfalfa Looper Cabbage Looper Cabbage Webworm Cutworm species Imported Cabbageworm Southern Cabbageworm	1.9 – 2.5	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.	¹ For control of first and second instars only. ² Suppression only. ³ See Resistance statement under Use Requirements and Precautions.
Aphid species ³ Armyworm Beet Armyworm ^{1,3} Corn Earworm Diamondback Moth ³ Fall Armyworm ¹ Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Meadow Spittlebug Plant Bug species including Lygus species ³ Spider Mite species ² Stink Bug species Thrips species ² Vegetable Weevil (Adult) Yellowstriped Armyworm	2.5 – 3.8	Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by ground, apply in a minimum of 10 gallons of water / acre. When applying by air, apply in a minimum of 2 gallons of water / acre.	
Whitefly species ³	3.8		

Restrictions

DO NOT apply more than 23.0 fl. oz. of this product per acre per crop season.
DO NOT apply within 7 days of harvest (PHI - 7 Days).
DO NOT apply within 5 days of previous application (Minimum retreatment interval – 5 Days).
 *Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.



COTTON - Foliar			
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Cutworm species Soybean Thrips Tobacco Thrips	1.9 – 3.0	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 7 or more days.	¹ For control of first and second instars only.
Aphids Banded-winged whitefly Bollworm/Budworm (ovicidal effect) Cabbage Looper Cotton Fleahopper Cotton Leafperforator Cotton Leafworm Green Stink Bug Lygus Bug species ³ Pink Bollworm Saltmarsh Caterpillar Southern Green Stink Bug	3.0 – 3.8	Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage.	² Suppression only. ³ See Resistance statement under Use Requirements and Precautions . ⁴ For control before the larva bores into the plant stalk.
Beet Armworm ^{1,3} Boll Weevil Cotton Bollworm European Corn Borer ⁴ Fall Armyworm Sweetpotato Whitefly ^{2,3} Tobacco Budworm ³ Twospotted Spider Mite ²	3.8 – 5.0	When applying by ground, apply in a minimum of 10 gallons of water / acre. When applying by air, apply in a minimum of 3 gallons of water / acre.	
Aphids: For best results, use the higher listed rate after first bloom or on rapidly increasing populations. Bollworm/budworm: Under light infestation levels 2.6 fl. oz. of product per acre may be applied in conjunction with intense field monitoring. When applied according to label this product also provided ovicidal control of unhatched <i>Heliothine</i> species eggs. For boll weevil control: spray on a 3 - 5 day schedule. Adjuvants: Insect control can be improved with the use of a non-ionic surfactant or COC. DO NOT use binder or sticker type surfactants.			
Restrictions			
DO NOT apply more than 25.6 fl. oz. of this product acre per crop season. DO NOT apply within 21 days of harvest. (PHI - 21 Days). DO NOT apply within 7 days of previous application (Minimum retreatment interval – 7 Days). DO NOT graze livestock in treated areas. DO NOT apply more than a total of 6 applications of the active ingredient per season. Regardless of formulation or method of application, apply no more than 0.5 lb active ingredient of Imidacloprid per acre per season, including seed treatment soil and foliar uses.			



FRUITING VEGETABLES* - Foliar:

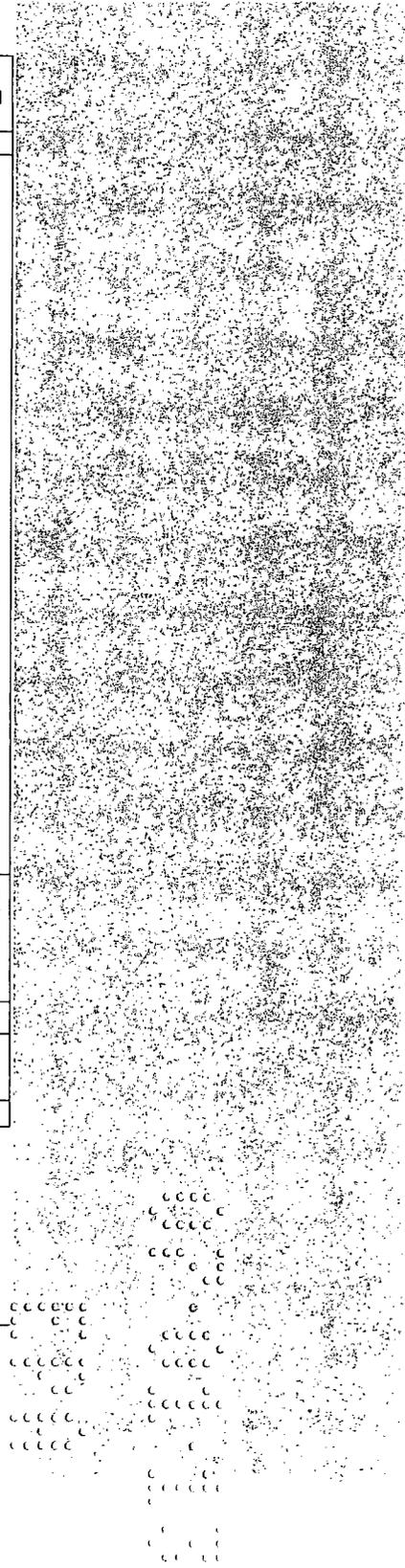
Crops of Crop Group 8 including: Eggplant, Ground cherry, Pepino, Peppers (including bell, chili, cooking, pimento and sweet), Tomatillo, Tomato

Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Cabbage Looper Cutworm species Hornworm species	1.9 – 2.5	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 5 or more days.	¹ For control of first and second instars only.
For control of: Aphid species ³ Beet Armyworm ^{1,3} Blister Beetle species Colorado Potato Beetle ³ Cucumber Beetle species (Adult) European Corn Borer ⁴ Fall Armyworm ¹ Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Leafminer species ² Meadow Spittlebug Pepper Weevil (Adult) ² Plant Bug species including Lygus species ³ Southern Armyworm ¹ Spider Mite species ² Stalk Borer ⁴ Stink Bug species Thrips species ⁵ Tobacco Budworm ³ Tomato Fruitworm Tomato Pinworm Tomato Psyllid ^{2,3} Vegetable Weevil (Adult) ¹ Yellowstriped Armyworm ¹	2.5 – 3.8	Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by ground, apply in a minimum of 10 gallons of water / acre. When applying by air, apply in a minimum of 2 gallons of water / acre.	² Suppression only. ³ See Resistance statement under Use Requirements and Precautions. ⁴ For control before the larva bores into the plant stalk or fruit. ⁵ Does not include Western Flower Thrips or <i>Thrips palmi</i> ; Controls foliage feeding thrips only.
Whitefly species ³	3.8		

Pepper weevil: Apply specified dosage of this product by ground equipment only, timing applications prior to a damaging pest population becoming established. Good coverage of foliage and fruit is necessary for optimal control. Applications of this product must be incorporated into a full-season program, where alternations of effective products from multiple classes of chemistry and different modes of actions are utilized in a blocked or windowed approach. For additional information, please contact your Nufarm representative, Extension Specialist or crop advisor.

Restrictions

DO NOT apply more than 23.0 fl. oz. of this product per acre per crop season.
DO NOT apply within 5 days of harvest (**PHI - 5 Days**).
DO NOT apply within 5 days of previous application (**Minimum retreatment interval – 5 Days**).
 *Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.



LEGUME VEGETABLES* - Beans & Peas, except Soybean - Foliar:

Crops of Crop Group 6 (Except soybean, dry) including: Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Pea and Bean, Bean (*Lupinus* spp., includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (*Phaseolus* spp., includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (*Vigna* spp., includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yardlong bean), Pea (*Pisum* spp. includes dwarf pea, edible pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea), Other Beans and Peas [Broad bean (fava), chickpea (garbanzo bean), Guar, Jackbean, Lablab bean (hyacinth bean, lentil, Pigeon pea, soybean (immature seed), Sword bean]

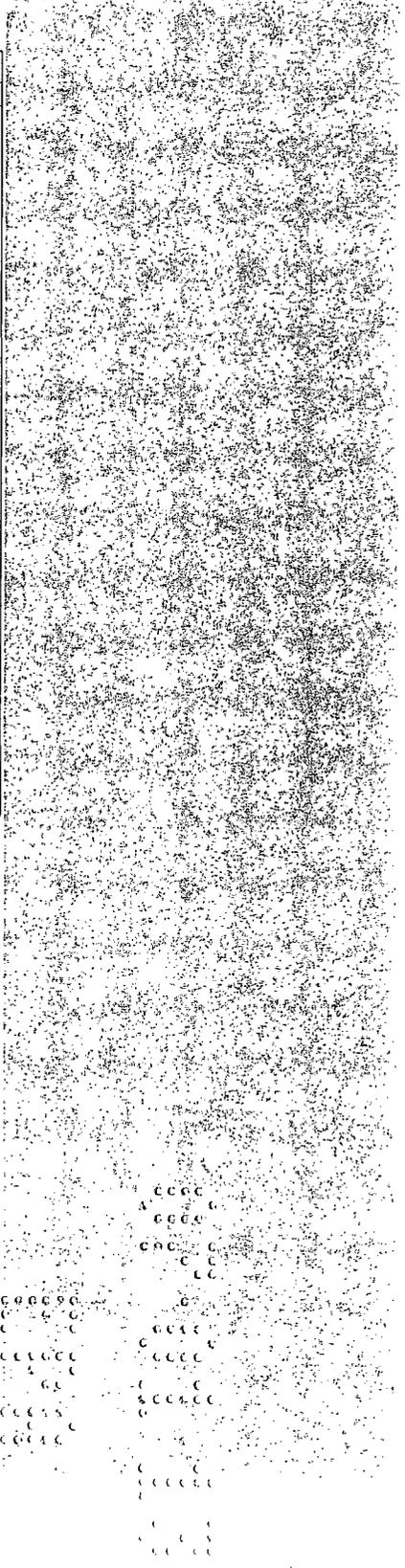
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Cutworm species Green Cloverworm Imported Cabbageworm Mexican Bean Beetle Saltmarsh Caterpillar Velvetbean Caterpillar	1.9 – 2.5	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.	¹ For control before the larva bores into the plant stalk or pods. ² Use higher listed rates for large larvae.
Alfalfa Caterpillar Aphid species ⁴ Armyworm ² Bean Leaf Beetle Bean Leafskeltonizer Blister Beetle species Corn Earworm Corn Rootworm Beetle species (Adult) Cucumber Beetle species (Adult) Curculio and Weevil species ¹ (foliage & pod feeding adults & larvae) European Corn Borer ¹ Fall Armyworm ² Flea Beetle species (Adult) Fleahopper species Grasshopper species Japanese Beetle (Adult) Leafhopper species Leaf-tier species Looper species (except Soybean Looper) Meadow Spittlebug Painted Lady Butterfly (Larva) Plant Bug species including Lygus species ¹ Stalk Borer ¹ Stink Bug species Three-cornered Alfalfa Hopper Thrips species ^{4,5} Tobacco Budworm ⁴ Webworm species	2.5 – 3.8	Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.	³ Suppression only. ⁴ See Resistance statement under Use Requirements and Precautions. ⁵ Does not include Western Flower Thrips.
Beet Armyworm ^{3,4} Leafminer species ^{3,4} Lesser Cornstalk Borer ³ Soybean Looper ^{3,4} Spider Mite species ³ Whitefly species ⁴	3.8		

Restrictions

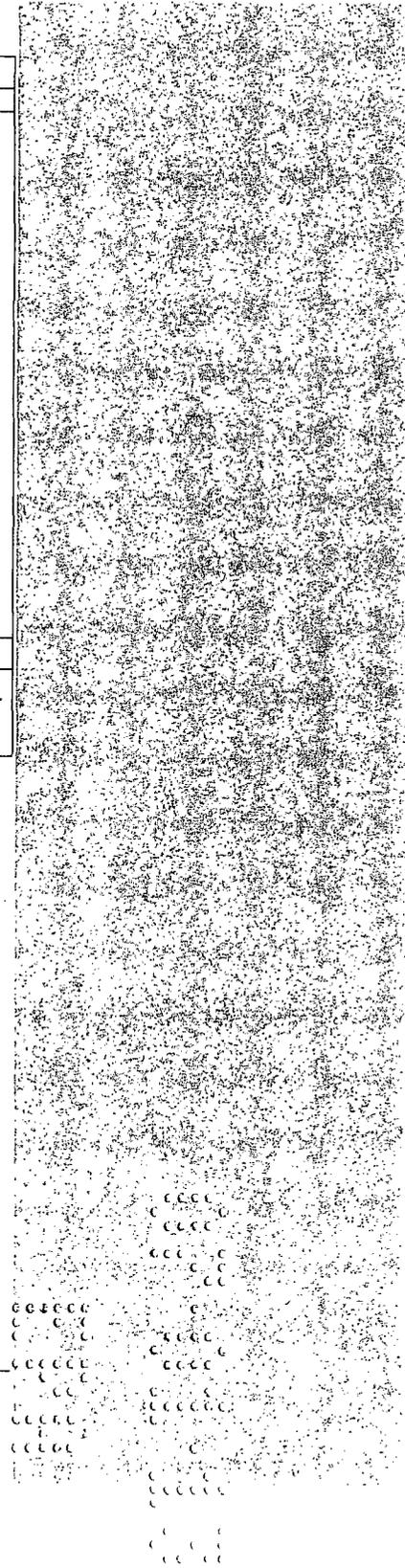
DO NOT apply more than 12.4 fl. oz. of this product per acre per crop season.
 For edible podded and succulent shelled legume vegetables, **DO NOT** apply within 7 days of harvest (PHI - 7 Days).
 For dried shelled legume vegetables, **DO NOT** apply within 21 days of harvest (PHI - 21 Days).
DO NOT apply within 7 days of previous application (Minimum retreatment interval – 7 Days).
 For succulent and dried shelled peas and beans, **DO NOT** graze livestock in treated areas or harvest vines for forage or hay.

*Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.

LETTUCE* (Head & Leaf) - Foliar			
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Alfalfa Looper Cabbage Looper Cutworm species Green Cloverworm Imported Cabbageworm Saltmarsh Caterpillar	1.9 – 2.5	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.	¹ For control of first and second instars only. ² Suppression only. ³ See Resistance statement under Use Requirements and Precautions .
Aphid species ³ Armyworm Beet Armyworm ^{1,3} Corn Earworm Diamondback Moth ³ European Corn Borer ⁴ Fall Armyworm ¹ Flea Beetle species Grasshopper species Japanese Beetle (Adult) Leafhopper species Meadow Spittlebug Plant Bug species including Lygus species ³ Southern Armyworm Spider Mite species ² Stink Bug species Tobacco Budworm ³ Vegetable Weevil (Adult)	2.5 – 3.8	Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by ground, apply in a minimum of 10 gallons of water / acre. When applying by air, apply in a minimum of 2 gallons of water / acre.	⁴ For control before the larva bores into the stem or head.
Whitefly species ³	3.8		
Restrictions			
DO NOT apply more than 23.0 fl. oz. of this product per acre per crop season. DO NOT apply within 7 days of harvest (PHI - 7 Days). DO NOT apply within 5 days of previous application (Minimum retreatment interval - 5 Days).			
*Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.			

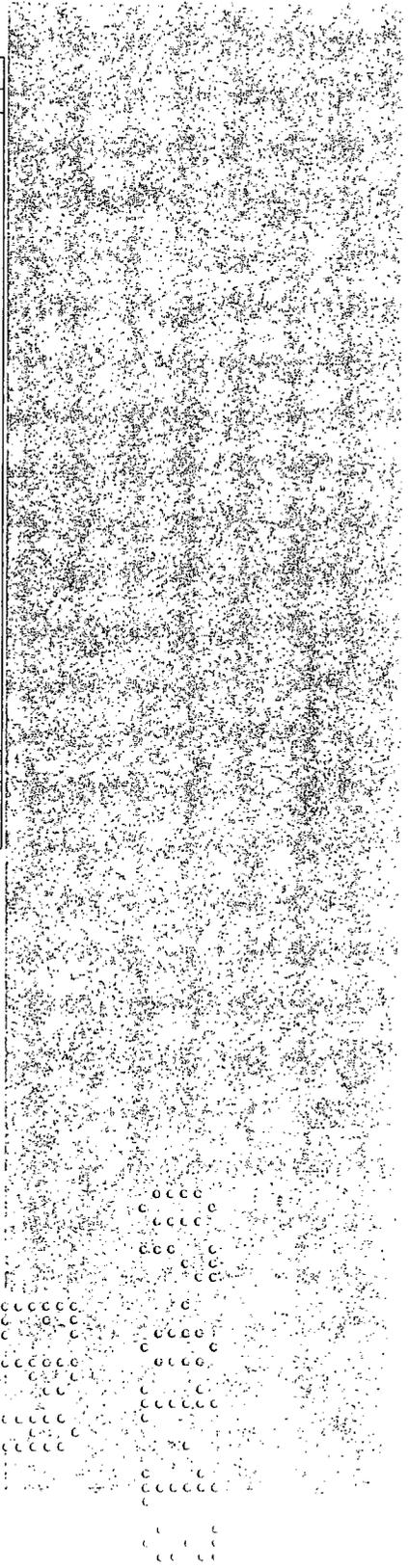


PEANUTS - Foliar			
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Cutworm species Green Cloverworm Leafhoppers Rednecked Peanut Worm Threecornered Alfalfa Hopper Velvetbean Caterpillar	1.9 – 2.5	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.	¹ Use higher listed rates for large larvae. ² Suppression only. ³ See Resistance statement under Use Requirements and Precautions.
For control of: Armyworm ¹ Bean Leaf Beetle Corn Earworm Fall Armyworm ¹ Grasshopper Species Southern Corn Rootworm (Adult) Stink Bug species. Tobacco Thrips Vegetable Weevil Whitefringed Beetle (Adult)	2.5 – 3.8	Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.	
For control of: Aphids ³ Lesser Cornstalk Borer ² Soybean Looper ^{2,3} Spider Mite Species ² Whitefly species ³	3.8		
Restrictions			
DO NOT apply more than 12.4 fl. oz. of this product per acre per crop season. DO NOT apply within 14 days of harvest (PHI - 14 Days) (minimum time between final application and threshing for seed). DO NOT apply within 5 days of previous application (Minimum retreatment interval - 5 Days).			

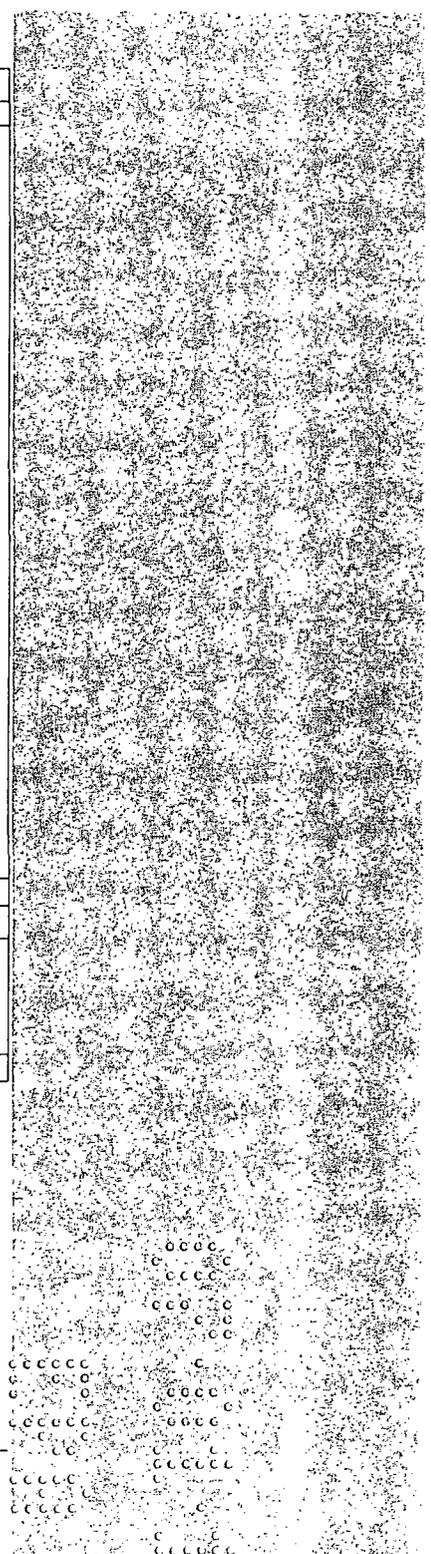


POME FRUITS - Foliar:			
Crops of Crop Group 11 including: Apple, Crabapple, Loquat, Mayhaw, Oriental Pear, Pear, Quince			
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Apple Aphid Apple Maggot (Adult) ² Cherry Fruit Fly species (Adult) Codling Moth Green Fruitworm Japanese Beetle Leafhopper species Leafroller species Lesser Appleworm Omnivorous Leafroller Orange Tortrix Oriental Fruit Moth Pear Psylla ¹ Periodical Cicada Plant Bug species Plum Curculio Rosy Apple Aphid San Jose Scale (crawlers, fruit infestations only) Sawfly species Spirea Aphid ¹ Stink Bug species Tent Caterpillar species Tentiform Leaf Miner species Tree Borer species (Adult) Tufted Apple Budworm Webworm species	2.5 -5.0	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 10 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Apply with ground or air equipment using sufficient water to obtain full coverage of all above ground plant parts. When applying by air, apply in a minimum of 2 gallons of water per acre, but use higher listed rates as appropriate for thorough coverage. When applying by ground, apply in a minimum of 10 gallons of water per acre. For best results apply in a minimum of 50 gallons of water / acre to ensure thorough coverage.	¹ Suppression only. ² Applications targeting apple maggot should be combined with manufacturer's specified rate of a sticker.
Restrictions			
DO NOT apply more than 25.6 fl. oz. of this product per acre per crop season. DO NOT apply more than 20.5 fl. oz. of this product per acre per year post bloom. DO NOT apply within 21 days of harvest (PHI - 21 Days). DO NOT apply within 10 days of previous application (Minimum retreatment interval - 10 Days). DO NOT apply pre-bloom or during bloom or when bees are actively foraging.			

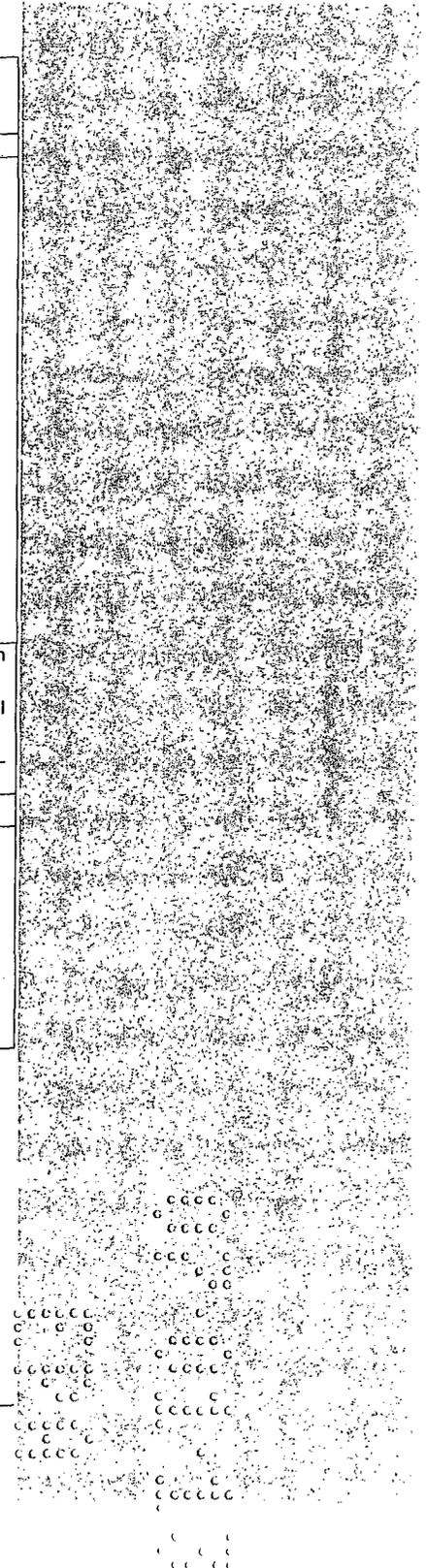
POTATO - Foliar			
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Cutworm species Leafhopper species Saltmarsh Caterpillar Woollybear Caterpillar species	1.9 – 2.5	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds and IPM recommendations.	¹ Use higher listed rate for large larvae. ² Suppression only.
Aphid species ³ Armyworm species ¹ Blister Beetle species Colorado Potato Beetle ³ Corn Earworm Cricket Species Cucumber Beetle species (Adult) European Corn Borer Flea Beetle Species (Adult) Fleahoppers Grasshopper species Looper species ³ Plant Bug species including Lygus species ³ Potato Psyllid Potato Tuberworm Stink Bug species Thrips species ^{3,4} Tortoise Beetle species Webworm species Weevil species (Adult)	2.5 – 3.8	Apply with ground or air equipment using sufficient water to obtain full coverage of all above ground plant parts. When applying by air, apply in a minimum of 2 gallons total solution per acre. When applying by ground, a minimum of 10 gallons total solution per acre is recommended.	³ See Resistance statement under Use Requirements and Precautions. ⁴ Does not include Western Flower Thrips.
Leafminer species ^{2,3} Spider Mite species ² Whitefly species ³	3.8		
Restrictions			
DO NOT apply more than 15.4 fl. oz. of this product per acre per crop season. DO NOT apply within 7 days of harvest (PHI - 7 Days). DO NOT apply within 7 days of previous application (Minimum retreatment interval - 7 Days).			



SOYBEAN* (Legume Vegetable) - Foliar			
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Bean Leaf Beetle Cabbage Looper Corn Earworm Corn Rootworm Beetle Species (Adult) ⁶ Cutworm species Green Cloverworm Mexican Bean Beetle Painted Lady Butterfly (Larva) Potato Leafhopper Saltmarsh Caterpillar Soybean Aphids ⁴ Threecornered Alfalfa Hopper Thrips species ⁵ Velvetbean Caterpillar Woollybear Caterpillar species	1.9 – 3.2	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage.	¹ Use higher listed rate for large larvae. ² Suppression only. ³ See Resistance statement under Use Requirements and Precautions . ⁴ Use higher listed rate for heavy populations and/or late-season applications.
Armyworm Blister Beetle species European Corn Borer Fall Armyworm ¹ Grasshopper species Japanese Beetle (Adult) Plant Bug species Silverspotted Skipper Stink Bug species Tobacco Budworm ³ Webworm species Yellowstriped Armyworm ¹	3.2 – 3.8	When applying by ground, apply in a minimum of 10 gallons of water / acre. When applying by air, apply in a minimum of 2 gallons of water per acre.	⁵ Does not include Western Flower Thrips. ⁶ For control of adult corn rootworm beetles (<i>Diabrotica</i> species) as part of an aerial-applied corn rootworm control program use a minimum of 2.5 fl. oz. of this product per acre.
Beet Armyworm ^{2,3} Lesser Cornstalk Borer ² Soybean Looper ^{2,3} Spider Mite species ² Whitefly species ³	3.8		
Stink bugs: Control may require the use of two applications made at 7 to 10 day intervals.			
Restrictions			
DO NOT apply more than 7.7 fl. oz. of this product per acre per crop season. DO NOT apply within 30 days of harvest (PHI - 30 Days). DO NOT apply within 7 days of previous application (Minimum retreatment interval - 7 Days). DO NOT graze or harvest treated soybean forage, straw, or hay for livestock feed. DO NOT apply this product within 45 days of planting if soybean seeds were treated with a neonicotinoid product.			
* Use not permitted in California unless otherwise directed by state-specific 24(c) labeling.			



STONE FRUITS¹ - Foliar:			
Crops of Crop Group 12 including: Apricot ² , Cherry ³ (including sweet and tart), Nectarine ² , Peach ² , Plum ³ (including chickasaw, damson and Japanese), Plumcot ³ , Prune ³ (fresh and dried)			
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: American Plum Borer Aphid Species Apple Maggot (Adult) Cherry Fruit Fly species (Adult) Codling Moth Green Fruitworm Japanese Beetle June Beetle Leafhopper species Leafroller species Oriental Fruit Moth Peach Twig Borer Peachtree Borer species Periodical Cicada Plant Bug species Plum Curculio Rose Chafer Sawfly species Stink Bug species Tent Caterpillar species Thrips species ⁴	2.5 -5.0	Apply before pests reach damaging levels. Apply as required by scouting, at intervals equal or greater than those specified under Restrictions . Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold and IPM recommendations. Apply with ground equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by ground, apply in a minimum of 50 gallons of water / acre.	⁴ Suppression only.
¹ For Stone Fruit: DO NOT apply this product between the pre-bloom (swollen bud) and post bloom (petal fall) growth stages. ² For Apricot, Nectarine, Peach: Minimum application volume (water): 50 GPA - ground application; 25 GPA - aerial application. ³ For Cherries, Plums, Plumcot, Prune: Minimum application volume (water): 50 GPA - ground application; 25 GPA - aerial application.			
Restrictions			
DO NOT apply more than 25.6 fl. oz. of this per acre per crop season. DO NOT apply more than 20.5 fl. oz. of this product per acre per year post bloom. DO NOT apply within 14 days of harvest (PHI - 14 Days). DO NOT apply pre-bloom or during bloom or when bees are actively foraging. For Apricot, Nectarine and Peach : DO NOT apply within 7 days of previous application (Minimum retreatment interval – 7 Days). For Cherry, Plum, Plumcot and Prune: DO NOT apply within 10 days of previous application (Minimum retreatment interval – 10 Days).			

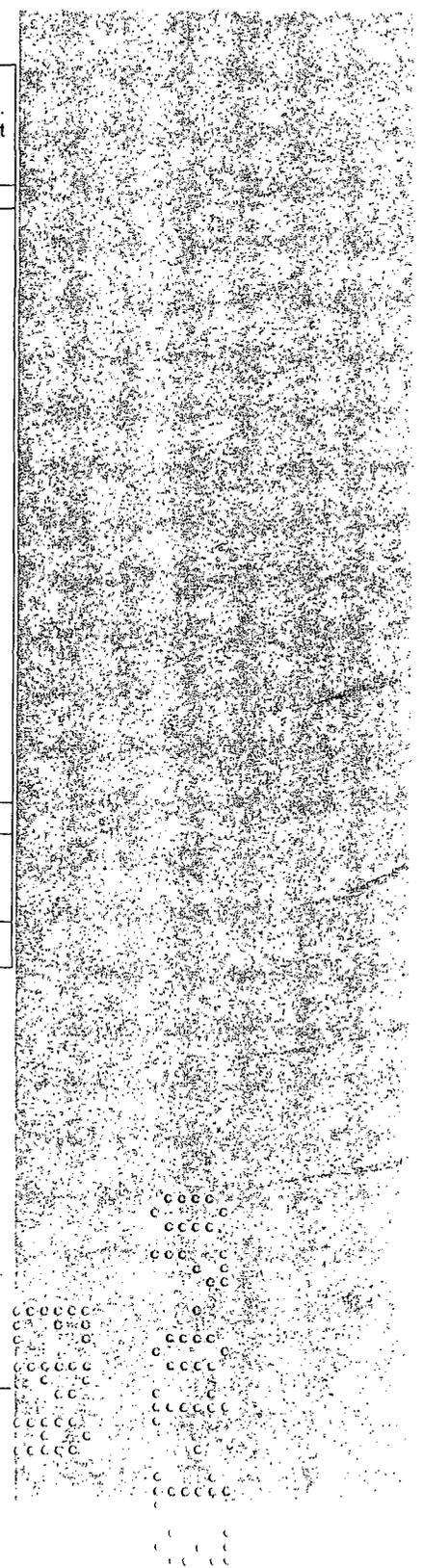


SWEET POTATO and other TUBEROUS & CORM VEGETABLES* - Foliar:
 Crops of Crop Group 1C including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible. Queensland arrowroot), Cassava (bitter and sweet)¹, Chayote (root), Chufa, Dasheen (taro) ¹, Ginger, Leren, Sweet Potato, Tanier (cocoyam) ¹, Turmeric, Yam bean (jicama, manioc pea), Yam (true)¹
 For application to Potato see Potato Section.

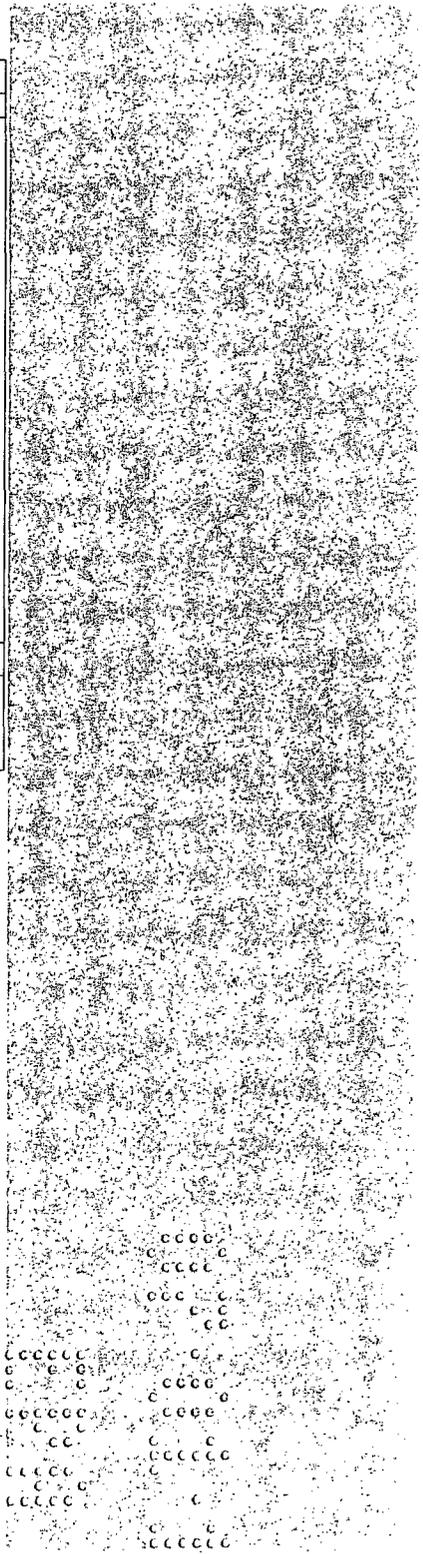
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Cutworm species Leafhopper species Saltmarsh Caterpillar Sweet Potato Hornworm Woollybear Caterpillar species	1.9 – 2.5	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds and IPM recommendations.	¹ Use higher listed rate for large larvae. ² Suppression only. ³ See Resistance statement under Use Requirements and Precautions.
Aphid species ³ Armyworm species ¹ Blister Beetle species Corn Earworm Cricket Species Cucumber Beetle species (Adult) Flea Beetle Species (Adult) Grasshopper species Looper species ³ Plant Bug species including Lygus species ³ Stink Bug species Sweet Potato Leaf Beetle (Adult) Sweet Potato Vine Borer Thrips species ^{3,4} Tortoise Beetle species Webworm species Weevil species (Adult)	2.5 – 3.8	Apply with ground or air equipment using sufficient water to obtain full coverage of all above ground plant parts. When applying by air, apply in a minimum of 2 gallons total solution per acre. When applying by ground, a minimum of 10 gallons total solution per acre is recommended.	⁴ Does not include Western Flower Thrips.
Leafminer species ^{2,3} Spider Mite species ² Whitefly species ³	3.8		

Restrictions

DO NOT apply more than 12.4 fl. oz. of this product per acre per crop season.
 DO NOT apply within 7 days of harvest (PHI - 7 Days) .
 DO NOT apply within 5 days of previous application (Minimum retreatment interval - 5 Days).
 DO NOT apply this product for these listed crops more than 3 times per crop season.
 *Not for use on crops grown for seed unless allowed by state-specific 24(c) labeling.
 *Tops or greens from these crops may be utilized for food or feed.



TOBACCO - Foliar			
Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Aphids ³ Armyworm species ¹ Blister Beetle species Cabbage Looper Corn Earworm Cucumber Beetle species (Adult) Cutworm species Grasshopper species Japanese Beetle (Adult) Katydid species Plant Bug species Potato Tuberworm Saltmarsh Caterpillar Stink Bug species Thrips species ² Tobacco Budworm ³ Tobacco Flea Beetle (Adult) Tobacco Hornworm Tomato Hornworm Tree Cricket species Vegetable Weevil (Adult) Webworm species	1.9 – 3.8	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 5 gallons of water per acre.	For control of first and second instars only. ² Suppression only. ³ See Resistance statement under Use Requirements and Precautions.
Restrictions			
DO NOT apply more than 11.5 fl. oz. of this product per acre per crop season. DO NOT apply within 40 days of harvest (PHI - 40 Days). DO NOT apply within 7 days of previous application (Minimum retreatment interval – 7 Days).			



TREE NUTS - Foliar:

Crops of Crop Group 14 (except Almonds) including: Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (Hazelnut), Hickory nut, Macadamia nut (Bush nut), Pecan, Pistachio, Walnut (black and English) (Persian)

Pests	Fluid ounces/Acre	Application Methods	Remarks
For control of: Ant species Aphids Chinch Bug Codling Moth Filbertworm Hickory Shuckworm Leaffooted Bug Leafroller species Navel Orangeworm Peach Twig Borer Pecan Casebearer species Phylloxera species (leaf infestations) Pecan Spittlebug Pecan Weevil Plant Bug species Stink Bug species Walnut Husk Fly species (Adult)	2.5 -5.0	Apply before pests reach damaging levels. Apply as required by scouting, at intervals of 6 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold. When applying with ground equipment use a minimum application volume (water) of 50 GPA. When applying with aerial application equipment use a minimum application volume (water) of 25 GPA.	¹ Time applications to control San Jose scale according to crawler stage, treating each successive generation. Two applications on a 10 to 14-day interval may be required to achieve control.
Leafhoppers & Sharpshooters Whiteflies San Jose scale ¹	5.0		

Restrictions

- DO NOT use in Almonds.
- DO NOT apply more than 20.5 fl. oz. of this product per acre per crop season.
- DO NOT apply more than 15.4 fl. oz. of this product per acre per year post bloom.
- DO NOT apply within 14 days of harvest (PHI - 14 Days).
- DO NOT apply within 6 days of previous application (Minimum retreatment interval - 6 Days).
- DO NOT apply pre-bloom or during bloom or when bees are actively foraging.

